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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Peter Hazucha

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8829

8791

7590

06/08/2006

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EXAMINER

TON, MY TRANG

ART UNIT

PAPER NUMBER

2816

DATE MAILED: 06/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/686,962	Applicant(s) HAZUCHA ET AL.	
	Examiner My-Trang N. Ton	Art Unit 2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 22 and 24-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22 and 24-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.



**MY-TRANG NUTON  
PRIMARY EXAMINER**

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

In response to Applicant's amendment filed on 12/1/05, the rejection made in the last Office action on the Garrity et al reference is withdrawn. A new Office action has been made as follows:

#### ***Claim Rejections - 35 USC § 112***

Claims 24, 26 and 31-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 24, the limitation "switch **third** and **fourth** switches of the **first** switched capacitor transformer and **first** and **second** switches of the **second** switched capacitor transformer" is misdescriptive of the present invention since such limitation is not seen as recited therein. In order to avoid any confusion, Applicant is required to particularly point out how this limitation reads on the circuit arrangement of the drawings. It is unclear which element is referred as "third and fourth switches of the first switches capacitor transformer" and "first and second switches of the second switched capacitor transformer".

In claim 26, it is unclear which elements are referred as "the **first** switched capacitor further comprises: ... a **second capacitor**... ; and a **third capacitor**" recited in lines 5-8. In order to avoid any confusion, Applicant is required to particularly point out how these limitations read on the circuit arrangement of the drawings.

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Claims 31-33 are similarly rejected as claim 26: In order to avoid any confusion, Applicant is required to particularly point out how the limitations “an amplifier” (claim 31), “a phase lock loop” (claim 32), “a voltage regulator” (claim 33) read on the circuit arrangement of the drawings.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 22, 24, 27-30 and 34-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Oakeson et al (U.S Patent No. 6,456,123).

Oakeson discloses in fig. 2 a translation circuit including:

a voltage reference circuit (V+, V-) to develop the reference voltage,

a functional unit (circuit provides V+, V- and ADC) to operate based upon the reference voltage, and

a first switched capacitor transformer (S1-S2, C1) comprising a first capacitor (C1) and a first plurality of switches (S1, S2) that couple the first capacitor (C1) to the voltage reference circuit (V+, V-) in order to receive the reference voltage during a first period (ON state) and that couple the first capacitor to the functional unit in order to deliver the reference voltage to the functional unit during a second period (OFF state), and

a second switched capacitor transformer (S3, S4, C3) comprising a second capacitor (C3) and a second plurality of switches (S3, S4) that couple the second capacitor to the voltage reference circuit in order to receive the reference voltage during the second period (ON state) and that couple the second capacitor to the functional unit in order to deliver the reference voltage to the functional unit during the first period (OFF state) as recited in claim 22.

Element 19 reads on a clock generator as recited in claims 24, 27-29. See col. 3, line 60- col. 7, line 23.

Claim 30 is similarly rejected as claim 22: a voltage reference circuit (V+, V-), a plurality of functional units (circuit provides V+, V- and ADC) and a plurality of switched capacitors S1-S4, C1 and C3).

Claims 34-35 are similarly rejected as claim 22: Elements S1-S4, C1, C3 read on each of the plurality of switched capacitors comprise a capacitor (C1, C3) and a plurality of switches (S1, S4). The first time duration (ON state), the second time duration (OFF state).

The first time duration (ON state) and the second time duration (OFF state) are non-overlapping as recited in claim 36.

The method recited in claims 37-42 are similarly rejected as above claims 22, 24, 27-30, 34-36.

***Claim Rejections - 35 USC § 103***

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oakeson et al as applied to claims 22 and 24 above.

As stated above, every element of the claimed invention recited in above claims can be seen in the circuit of Oakeson et al. However, this reference does not specifically show the "first and third switches are pMOSFETs, and the second and fourth switches are nMOSFETs" (claim 25).


However, MOSFETs are well-known switching devices and patentable equivalent to switches since no unobvious results are seen produce from their use. Therefore, it would have been obvious at the time of the invention was made for one skilled in the art to utilize these particular types of transistors (switches S1, S4 are pMOSFETs, switches S2, S3 are nMOSFETs) because MOSFETs have very short switching times and very low electrical power consumption.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to My-Trang N. Ton whose telephone number is 571-272-1754. The examiner can normally be reached on 7:00 a.m - 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



My-Trang N. Ton  
Primary Examiner  
Art Unit 2816

May 26, 2006